IEPA Log No.: **C-0178-16**
CoE appl. #: **2016-00365**

Public Notice Beginning Date: **March 29, 2017**
Public Notice Ending Date: **April 19, 2017**

Section 401 of the Federal Water Pollution Control Act
Amendments of 1972

Section 401 Water Quality Certification to Discharge into Waters of the State

Public Notice/Fact Sheet Issued By:

Illinois Environmental Protection Agency
Bureau of Water
Division of Water Pollution Control
Permit Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276
217/782-3362

Name and Address of Discharger: Mr. & Mrs. William Revelle, 2815 Lakeside Court, Evanston, IL 60201

Discharge Location: Section 35, T42N, R13E of the 3rd P.M. in Cook County within Evanston

Name of Receiving Water: Lake Michigan.

Project Description: Quarrystone revetment, breakwater and sand nourishment.

The Illinois Environmental Protection Agency (IEPA) has received an application for a Section 401 water quality certification to discharge into the waters of the state associated with a Section 404 permit application received by the U.S. Army Corps of Engineers. The Public Notice period will begin and end on the dates indicated in the heading of this Public Notice. The last day comments will be received will be on the Public Notice period ending date unless a commenter demonstrating the need for additional time requests an extension to this comment period and the request is granted by the IEPA. Interested persons are invited to submit written comments on the project to the IEPA at the above address. Commenters shall provide their names and addresses along with comments on the certification application. Commenters may include a request for public hearing. The certification and notice number(s) must appear on each comment page.

The attached Fact Sheet provides a description of the project and the antidegradation assessment.

The application, Public Notice/Fact Sheet, comments received, and other documents are available for inspection and may be copied at the IEPA at the address shown above between 9:30 a.m. and 3:30 p.m. Monday through Friday when scheduled by the interested person.

If written comments or requests indicate a significant degree of public interest in the certification application, the IEPA may, at its discretion, hold a public hearing. Public notice will be given 30 days before any public hearing. If a Section 401 water quality certification is issued, response to relevant comments will be provided at the time of the certification. For further information, please call Thaddeus Faught at 217/782-3362.

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Fact Sheet for Antidegradation Assessment
Mr. & Mrs. William Revelle – Lake Michigan – Cook County
IEPA Log# C-0178-16
COE # 2016-00365
Contact: Scott Twait (217) 558-2012
March 29, 2017

The applicant has applied for 401 Water Quality Certification for impacts associated with construction of a new quarrystone breakwater island and revetment within Lake Michigan at 2815 Lakeside Court, Evanston, Illinois. The site currently contains a steel seawall which has begun to tip towards the lake. There is currently no beach present and there was no stable beach during low lake levels. The purpose of the proposed quarrystone breakwater island and revetment is to increase the level of shoreline protection from wave action.

The breakwater island would be 78' in length and extend 75' out from the edge of the existing steel seawall. The breakwater would have a crest elevation of 583' International Great Lakes Datum 1985 adjusted (IGLD-85). The proposed revetment would be 120' long with a crest elevation of 584' IGLD. The project would also include the discharge of 660 tons of clean sand which includes the 20% overfill required by the Corps and the IDNR. This would be done in an effort to compensate for the initial removal of sand from the littoral system caused by the construction of the breakwater. No mitigation is proposed for this project as the total impact to waters of the U.S. totals 0.10 acres (area of quarried stone for breakwater and revetment).

Conditions for walking along the shoreline in this area are poor. Stairs would be incorporated into the proposed revetment for access from the water to the top of the revetment.

Identification and Characterization of the Affected Water Body.

Lake Michigan has 0 cfs of flow during critical 7Q10 low-flow conditions. Lake Michigan is classified as a Lake Michigan Basin Use Water. Lake Michigan is not listed as a biologically significant stream in the 2008 Illinois Department of Natural Resources Publication *Integrating Multiple Taxa in a Biological Stream Rating System*, nor is it given an integrity rating in that document. Lake Michigan, Waterbody Segment, QLM-01, is listed on the draft 2016 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for fish consumption use with potential causes given as mercury and polychlorinated biphenyls and aesthetic quality use with potential cause given as phosphorus. Aquatic life, public and food processing water supply, primary recreational contact, and secondary contact uses are fully supported. A Total Maximum Daily Load (TMDL) Report has been prepared and approved by the USEPA for 51 beaches along Illinois' Lake Michigan shoreline to address Primary Contact Use Recreation impairments due to excess bacteria. The proposed activity occurs within an area identified by the report "Shoreline Segments in Suburban Cook County, Illinois" May 15, 2013 as a Beach Protection Area subject to that TMDL.

Identification of Proposed Pollutant Load Increases or Potential Impacts on Uses.

The pollutant load increases that would occur from this project include some possible increases in total suspended solids. These increases, a normal and unavoidable result of the placement of the quarrystone breakwater and revetment, may occur in the lake at the point of construction activity. Benthic habitat will also be disturbed in the vicinity of the construction area. The construction and modification of the existing steel groin and quarrystone breakwater will fill less than 0.1 acres. No mitigation is proposed for this project as total impact to waters of the U.S. totals is less than 0.1 acres (area of quarried stone for breakwater and revetment). The project complies with requirements of the USEPA approved Total Maximum Daily Loads (TMDL) target of a water quality concentration limit load allocation for E. Coli bacteria of 126 colony forming units (cfu) per 100 mL.

Fate and Effect of Parameters Proposed for Increased Loading.

The increase in suspended solids, from the construction of the quarrystone breakwater and revetment, will be local and temporary. No mitigation is proposed for this project as total impact to waters of the U.S. totals less than 0.1 acres (area of quarried stone for breakwaters) and this is less than the threshold of 0.1 acres requiring mitigation. Although the benthic habitat will be disturbed by the construction activities, it is anticipated to recover and improve over time due to the placement of sand over the downcut clay substrates.

Purpose and Social & Economic Benefits of the Proposed Activity.

The purpose of the proposed breakwater protected beach cells is to establish a more stable layer of sand to reduce downcutting of the clay lakebed and provide a higher level of stormwave protection. The purpose of the proposed sand nourishment is to help maintain sand lost during storm events. Erosion of the clay lakebed, if not prevented, could result in additional beach erosion and undermine the existing shoreline structures.

Assessments of Alternatives for Less Increase in Loading or Minimal Environmental Degradation.

In addition to the proposed plan, three alternative plans were provided in the application. One alternative is to build the revetment only. By installing only a revetment, the lake bed will continue to erode. This option does not provide proper shore protection for the existing land and infrastructure, nor the lakebed.

A second alternative is to build a breakwater island only. This option includes installing one short shore parallel breakwater island extending to 75' east of the seawall. As this section is very open and does not hold a beach, a breakwater island in these conditions will likely not reduce wave overtopping to have proper protection for the seawall, walkway, boathouse and land. As the existing seawall has a smooth vertical face, sand would be scoured out of this system even with the short breakwater.

The third alternative is to build a quarrystone breakwater beach system that extends lakeward 125'. This system however would hold a beach and extend further into Lake Michigan. This system is not the best choice for the homeowners.

Summary Comments of the Illinois Department of Natural Resources, Regional Planning Commissions, Zoning Boards or Other Entities.

The IDNR EcoCAT web-based tool was used and indicated that there were protected resources in the vicinity of the discharge. IDNR evaluated the submittal and determined that impacts to the protected resources are unlikely. IDNR terminated the consultation request on June 28, 2016.

Agency Conclusion.

This preliminary assessment was conducted pursuant to the Illinois Pollution Control Board regulation for Antidegradation found at 35 Ill. Adm. Code 302.105 (antidegradation standard) and was based on the information available to the Agency at the time this assessment was written. We tentatively find that the proposed activity will result in the attainment of water quality standards and TMDL load allocations; that all existing uses of the receiving stream will be maintained; that all technically and economically reasonable measures to avoid or minimize the extent of the proposed increase in pollutant loading have been incorporated into the proposed activity; and that this activity will benefit the community at large by providing erosion control to the Lake Michigan shoreline. Comments received during the 401 water quality certification public notice period will be evaluated before a final decision is made by the Agency.